CUMULATIVE AUTHOR INDEX
Annals of Entomology
Volume 97, 2004

A

Adak, T., 171
Albrecht, C., 1026
Allen, C. R., 513
Allinghi, A., 1320
Almeida, R. P. P., 838
Aluja, M., 504, 928, 1336
Amano, H., 957
Arechavaleta-Velasco, M. E., 177
Arzuffi, R., 1306
Ashe, J. S., 624
Aukema, B. H., 117
Austin, J. W., 548, 556, 872
Ayabe, Y., 586

B

Backus, E. A., 838
Baixeras, J., 865
Barrera, E., 1
Benoit, J. B., 989
Berry, J. A., 860
Berry, S. D., 852
Bextine, B. R., 1055
Bickel, D. J., 437
Billick, I., 738
Bonet, A., 492
Borkent, A., 882
Borst, D. W., 681
Bosch, J., 161
Bostanian, N. J., 1263
Brailovsky, H., 1
Braks, M. A. H., 130
Broce, A. B., 592
Brower, A. V. Z., 519
Brown, B. V., 386
Brown, J. K., 852
Brown, J. W., 865
Brown, M. W., 500
Burgio, G., 1252

C

Cabrera, B. J., 548
Cabrera, N., 6, 889
Caceres, C., 524
Calcagno, G., 1320
Carrión, G., 492
Castelo, M. K., 1050
Castrejón-Gómez, V., 1306
Castrejón-Gómez, V. R., 1273
Center, T. D., 1216
Chambers, M., 1299
Chang, C. L., 524, 529, 536
Chang, Y.-L., 613
Chase, J. A., 872
Chen, J.-X., 364
Chinwada, P., 153
Choi, W. I., 825
Christiansen, K., 364
Cladera, J. L., 1320
Cohen, A. C., 796
Cole, B. J., 738
Collins, A. M., 140
Cooper, P., 697
Cordo, H. A., 271
Corley, J. C., 1050
Crook, D. J., 600
Cruz-López, L., 1273

D

D'Adamo, P., 450
Dang, P. M., 286
Das, M. K., 171
Davies, K. A., 1216
Dean, S. R., 147
DeGrandi-Hoffman, G., 1299
Delaplane, K. S., 860
de León, J. H., 574, 809
Dennis, B., 161
Ding, D., 653
Doležal, P., 1055
Doležalová, R., 1055
Dosdall, L. M., 458
Dowling, A. P. G., 322
Durden, L. A., 567

E

Eberhard, W. G., 1007
Eitam, A., 928
Ellis, J. D., Jr., 860
Elzen, P. J., 860
Emmanouel, N. G., 877
Ergin, E., 775, 1000
Errouissi, F., 701
Evans, G. A., 286

F

Fang, Q. Q., 567
Fauquet, C. M., 852
Favila, M. E., 1045
Favret, C., 1165
Fernandes, O. A., 729
Floyd, R., 697
Folgarait, P. J., 450
Fondong, V. N., 852
Fondrk, M. K., 1313
Forschler, B. T., 466, 1242
Fox, T. B., 240
Fritz, A. H., 1328
Fukasawa, Y., 184
Funk, D. J., 28

G

Gelhaus, J. K., 1126
Giblin-Davis, R. M., 1216
Gilbert, L. E., 450
Gold, R. E., 147
Gómez Cendra, P., 1320
Gómez-Zurita, J., 28
Goolsby, J., 1216
Goolsby, J. A., 397
Goolsby, J. H., 64
Goulet, H., 1263
Grant, A. K., 710
Graves, W. R., 233
Gray, D. A., 831
Grimaldi, D. A., 882
Grube, S., 466
Guillén, M., 1227

H

Halbert, S. E., 227
Hall, J. P. W., 310
Hanley, R. S., 624
Harding, S., 481
Harvey, D. J., 310
Heimpel, G. E., 203, 209, 249
Hepburn, R., 860
Heraty, J. M., 1227
Hernández, M. C., 437
Higgins, R. A., 600
Hobbs, H. H., III, 989
Holler, T., 928
Honório, N. A., 130
Hooper, J. E., 1299
Hopper, J. A., 600
Hopper, K. R., 235, 249
Hsu, Y.-F., 653
Hunt, G. J., 177

I

Inglis, G. D., 796
Ippolito, S., 1076
Izzo, A. S., 831

J

Jackson, C. G., 743
James, W. D., 105
Jang, E. B., 524
Janzen, D. H., 310
Jay-Robert, P., 701
Jeansonne, M. M., 519
Ji, J., 825
Jiménez-Pérez, A., 819
Johnson, A. J., 940
Johnson, R. N., 732
Jones, W. A., 574, 809

CUMULATIVE AUTHOR INDEX
Annals of Entomology
Volume 97, 2004

A

Adak, T., 171
Albrecht, C., 1026
Allen, C. R., 513
Allinghi, A., 1320
Almeida, R. P. P., 838
Aluja, M., 504, 928, 1336
Amano, H., 957
Arechavaleta-Velasco, M. E., 177
Arzuffi, R., 1306
Ashe, J. S., 624
Aukema, B. H., 117
Austin, J. W., 548, 556, 872
Ayabe, Y., 586

B

Backus, E. A., 838
Baixeras, J., 865
Barrera, E., 1
Benoit, J. B., 989
Berry, J. A., 860
Berry, S. D., 852
Bextine, B. R., 1055
Bickel, D. J., 437
Billick, I., 738
Bonet, A., 492
Borkent, A., 882
Borst, D. W., 681
Bosch, J., 161
Bostanian, N. J., 1263
Brailovsky, H., 1
Braks, M. A. H., 130
Broce, A. B., 592
Brower, A. V. Z., 519
Brown, B. V., 386
Brown, J. K., 852
Brown, J. W., 865
Brown, M. W., 500
Burgio, G., 1252

C

Cabrera, B. J., 548
Cabrera, N., 6, 889
Caceres, C., 524
Calcagno, G., 1320
Carrión, G., 492
Castelo, M. K., 1050
Castrejón-Gómez, V., 1306
Castrejón-Gómez, V. R., 1273
Center, T. D., 1216
Chambers, M., 1299
Chang, C. L., 524, 529, 536
Chang, Y.-L., 613
Chase, J. A., 872
Chen, J.-X., 364
Chinwada, P., 153
Choi, W. I., 825
Christiansen, K., 364
Cladera, J. L., 1320
Cohen, A. C., 796
Cole, B. J., 738
Collins, A. M., 140
Cooper, P., 697
Cordo, H. A., 271
Corley, J. C., 1050
Crook, D. J., 600
Cruz-López, L., 1273

D

D'Adamo, P., 450
Dang, P. M., 286
Das, M. K., 171
Davies, K. A., 1216
Dean, S. R., 147
DeGrandi-Hoffman, G., 1299
Delaplane, K. S., 860
de León, J. H., 574, 809
Dennis, B., 161
Ding, D., 653
Doležal, P., 1055
Doležalová, R., 1055
Dosdall, L. M., 458
Dowling, A. P. G., 322
Durden, L. A., 567

E

Eberhard, W. G., 1007
Eitam, A., 928
Ellis, J. D., Jr., 860
Elzen, P. J., 860
Emmanouel, N. G., 877
Ergin, E., 775, 1000
Errouissi, F., 701
Evans, G. A., 286

F

Fang, Q. Q., 567
Fauquet, C. M., 852
Favila, M. E., 1045
Favret, C., 1165
Fernandes, O. A., 729
Floyd, R., 697
Folgarait, P. J., 450
Fondong, V. N., 852
Fondrk, M. K., 1313
Forschler, B. T., 466, 1242
Fox, T. B., 240
Fritz, A. H., 1328
Fukasawa, Y., 184
Funk, D. J., 28

G

Gelhaus, J. K., 1126
Giblin-Davis, R. M., 1216
Gilbert, L. E., 450
Gold, R. E., 147
Gómez Cendra, P., 1320
Gómez-Zurita, J., 28
Goolsby, J., 1216
Goolsby, J. A., 397
Goolsby, J. H., 64
Goulet, H., 1263
Grant, A. K., 710
Graves, W. R., 233
Gray, D. A., 831
Grimaldi, D. A., 882
Grube, S., 466
Guillén, M., 1227

H

Halbert, S. E., 227
Hall, J. P. W., 310
Hanley, R. S., 624
Harding, S., 481
Harvey, D. J., 310
Heimpel, G. E., 203, 209, 249
Hepburn, R., 860
Heraty, J. M., 1227
Hernández, M. C., 437
Higgins, R. A., 600
Hobbs, H. H., III, 989
Holler, T., 928
Honório, N. A., 130
Hooper, J. E., 1299
Hopper, J. A., 600
Hopper, K. R., 235, 249
Hsu, Y.-F., 653
Hunt, G. J., 177

I

Inglis, G. D., 796
Ippolito, S., 1076
Izzo, A. S., 831

J

Jackson, C. G., 743
James, W. D., 105
Jang, E. B., 524
Janzen, D. H., 310
Jay-Robert, P., 701
Jeansonne, M. M., 519
Ji, J., 825
Jiménez-Pérez, A., 819
Johnson, A. J., 940
Johnson, R. N., 732
Jones, W. A., 574, 809

Juliano, S. A., 130, 194, 720

K

Kagata, H., 923
Kambic, R. E., 411
Kamimura, Y., 903
Kazmer, D. J., 276
Keirans, J. E., 567
Kemp, W. P., 161
Kesavaraju, B., 194, 720
Kirchner, R. F., 361
Klag, J., 541
Klimov, P. B., 322
Komatsu, J., 1026
Kondratieff, B. C., 361, 393
Kraus, J. E., 865
Krauth, S. J., 117
Krecek, J., 556, 872
Kurashima, R., 1026

L

Laffin, R. D., 949
Laflin, H. M., 982
Landis, D. A., 240
Langor, D. W., 949
Lanzoni, A., 1252
Lasnier, J., 1263
Lax, A., 753
Lekveishvili, M., 322
Lesage, L., 1263
Lewis, J. L., 1242
Lewis, M. L., 1216
Li, Q. X., 536
Lim, R., 1026
Lin, C.-H., 613
Lin, J., 635
Liu, J., 235
Lockwood, J. A., 276
Logarzo, G. A., 743
Lombardo, F., 1076
López Martínez, V., 15
Lounibos, L. P., 130
Lourenço-de-Oliveira, R., 130
Lucchi, A., 1294
Lumaret, J.-P., 701

M

Mackay, D. A., 971
Mackey, B. E., 1063
Maharajh, B., 872
Malandraki, E. G., 877
Malo, E. A., 1273
Mangold, J. R., 872
Mariani, R., 271
Marino de Remes Lenicov, A. M., 271
Masetti, A., 1252
Mathis, W. N., 259
Mazzoni, E., 1294
Mbata, G. N., 353
McCombs, S. D., 1018
McInnis, D. O., 1026
McKay, T., 592
McKenzie, C. L., 476
McMichael, M., 1034
Meikle, W. G., 481
Michaud, J. P., 710
Miller, D. G., III, 1233
Miller, D. R., 1163
Miller, G. L., 1103
Miller, N. W., 1063
Miller, T. A., 1055
Miura, K., 765
Miyatake, T., 1342
Moisey, D. W. A., 458
Morgan, D. J. W., 809
Mori, K., 635
Morón, M.-A., 77, 1306
Morrison, L. W., 913
Mueke, J. M., 153
Mutun, S., 681

N

Nakamatsu, Y., 994
Namba, O., 976
Nanda, N., 171
Nansen, C., 481
Nelson, C. R., 97
Ngern-Klun, R., 1069
Nixon, J., 872
Nolasco-Soto, J., 1045
Norris, M. E., 500
Nurullahoğlu, Z. U., 1000

O

OConnor, B. M., 322
Ohgushi, T., 923
Ohsawa, M., 770
Ojeda, M., 504
Okada, K., 1342
Omwega, C. O., 153
O'Neil, R. J., 204, 233, 240, 249
Ortiz-Domínguez, M., 1045
Osbrink, W., 757
Oswald, J. D., 1103
Overholt, W. A., 153

P

Page, R. E., Jr., 1313
Panchal, T. D., 286
Pankiw, T., 1313
Park, Y. I., 753, 757
Parrella, M. P., 982
Pastori, P. L., 729
Peabody, N. C., 1018
Pérez-Staples, D., 1336
Petanovic, R. U., 877
Peters, J. G., 898
Petit-Marty, N., 1320
Phillips, P. K., 647
Phillips, T. W., 353
Piangjai, S., 1069
Piau, O., 701
Piñero, J., 504
Podenas, S., 1126
Podeniene, V., 1126
Pogue, M. G., 1159, 1222
Poprawa, I., 541
Potter, D. A., 605
Pratissoli, D., 729
Prendini, L., 37
Prokopy, R. J., 1063
Prowell, D. P., 1034
Purcell, M., 1216

Q

Qian, Z.-Q., 653
Qiao, G., 227

R

Raffa, K. F., 117
Ragsdale, D. W., 204, 209, 219, 249
Raina, A., 757
Raina, A. K., 753
Ramaswamy, S. B., 353, 600
Ramirez, N., 1007
Regier, J. C., 411
Rey, C., 852
Richards, C. S., 860
Richards, G. R., 117
Riddick, E. W., 743
Robinson, G. E., 1313
Rodriguero, M., 1320
Rogan, D., 852
Rogers, M. E., 605
Rojas, J. C., 1273
Romero-López, A. A., 1306
Romero Nápoles, J., 15
Rost, M. M., 541, 781
Rutledge, C. E., 240, 249
Ryoo, M. I., 825

S

Saigusa, M., 976
Saito, Y., 635
Sak, O., 1000
Sakagami, T., 635
Sanborn, A. F., 647
Savaşçi, S., 775
Scheffer, S. J., 675, 1216
Scheffrahn, R. H., 556, 872
Schemerhorn, B. J., 940
Schenk-Hamlin, D., 209
Schneider, S. S., 1299
Schotzko, D. J., 743
Schulz, D. J., 1313
Segura, D. F., 1320
Sharkey, M. J., 1198
Shearman, D. C. A., 1018
Shelly, T. E., 203
Shu, S., 353
Shufran, K. A., 286
Shukle, R. H., 940, 1285
Shultz, J. W., 411
Silvain, J.-F., 1034

Simmons, R. B., 675, 1159
Sinan, S., 775
Sivinski, J., 504, 928
Solis, M. A., 64, 397
Solórzano-Filho, J. A., 865
Song, H., 420
Sosa, A. J., 271
Sperling, F. A. H., 949
Spira, T. P., 513
Sripakdee, D., 1069
Stark, B. P., 393
Starks, P. T., 732
Su, N.-Y., 556, 872
Subbarao, S. K., 171
Sugiura, S., 184
Sukontason, K., 1069
Sukontason, K. L., 1069
Süss, L., 1252
Szalanski, A. L., 548, 556, 872

T

Tabuchi, K., 957
Tagami, Y., 765
Takakura, K.-I., 346
Tam, S., 1026
Tanaka, S., 293, 302
Tanaka, T., 976, 994
Tang, Y. Q., 476
Tauber, C. A., 1129
Taylor, G. S., 1216
Taylor, M. D., 513
Tchabi, A., 481
Thayer, M. K., 624
Tigar, B., 481
Tokuda, M., 957
Tsai, J.-F., 790

U

Uçkan, F., 775, 1000
Ueno, T., 586

V

Valdez, J., 1306
Vandyke, K. A., 276
Vargas, R. I., 1063
Venette, R., 249
Venette, R. C., 219
Vera, M. T., 1320
Vilardi, J. C., 1320
Villa, J. D., 111
Villalobos, F. J., 1306
Vincent, C., 1263
Vinson, S. B., 105
Viscarret, M. M., 1320
Voegtlin, D. J., 204, 227, 233, 1165
Vogler, A. P., 28

W

Walsh, G. C., 6, 889
Walters, A. C., 971
Wang, F., 364
Wang, Q., 819
Wattal, S., 171
Weathersbee, A. A., III, 286, 476
Webb, M. D., 667
Weeks, R. D., Jr., 105
Wharton, T., 697
Wiernasz, D. C., 738
Wild, A. L., 1204
Williams, L., III, 743
Wilson, L. T., 105
Woolfolk, S. W., 796
Wu, F.-S., 613
Wu, K., 235
Wu, Z., 209, 249

X

Xu, G., 567

Y

Yamazaki, K., 184
Yang, C.-T., 790
Yang, J.-T., 613
Yang, M.-M., 790
Yee, D. A., 720
Yeh, W.-B., 613
Yen, S.-H., 64, 397, 653
Yoder, J. A., 989
Yoshiyama, M., 1285
Yukawa, J., 957

Z

Zahniser, J. N., 667
Zanuncio, J. C., 729
Zatwarnicki, T., 259
Zettler, J. A., 513
Zettler, L. W., 989
Zhan, W., 209
Zhao, K., 235
Zhou, C.-F., 898
Zhu, Y. C., 743

CUMULATIVE SUBJECT INDEX
Annals of Entomology
Volume 97, 2004

A

abiotic conditions,
  biological invasion, 971
  survival, 971
  temperature, 971
Acanthops,
  biogeography, 1076
  cladistics, 1076
  Neotropics, 1076
Acari,
  cryptic species, 322
  discrimination, 322
  multivariate analysis, 322
  Sancassania, 322
Achoria grisella,
  Apanteles galleriae, 1000
  fatty acids, 1000
  lipid, 1000
  parasitism, 1000
Acrididae,
  AMOVA, 276
  biogeography, 276
  mitochondrial DNA, 276
Acroneuria,
  new species, 393
  North America, 393
  Perlidae, 393
  Plecoptera, 393
active transport,
  embryogenesis, 541
  pleuropodium, 541
  secretion, 541
  Thermobia domestica, 541
Aedes albopictus,
  Ochlerotatus triseriatus, 194
  predation risk, 194
  Toxorhynchites, 194
Aethina tumida,
  Cape honey bees, 860
  European honey bees, 860
  hygienic behavior, 860
  oviposition, 860
AFLP,
  allozymes, 1034
  host specificity, 1034
  hybridization, 1034
  mtDNA, 1034
  Spodoptera frugiperda, 1034
age,
  antennal length, 819
  body weight, 819
  sexual selection, 819
  virginity, 819
agriculturally important species,
  misidentification, 1159
  morphology, 1159
Agromyzidae,
  leafminer, 1252
  marginal area, 1252
  trophic relation, 1252
  weeds, 1252
Akaike Information Criterion,
  crop pollination, 161
  diapause, 161
  overwintering, 161
  respirometry, 161
alimentary canal,
  Chrysoperla rufilabris, 796
  gut, 796
  symbiosis, 796
  yeast, 796
Alloperla,
  Hydroperla, 361
  Isogenoides, 361
  Plecoptera, 361
allozymes,
  AFLP, 1034
  host specificity, 1034
  hybridization, 1034
  mtDNA, 1034
  Spodoptera frugiperda, 1034
alternative host,
  egg parasitoids, 729
  life history, 729
  Trichogramma acacioi, 729
  Trichogramma pretiosum, 729
altitudinal transect,
  competition, 504
  habitat partitioning, 504
  resource use, 504
  spatial distribution, 504
Alutacea Group,
  genitalia, 420
  North American *Schistocerca*, 420
  phylogeny, 420
  systematics, 420
amber,
  Burmese, 882
  Cretaceous, 882
  Culicidae, 882
  mosquito, 882
amino acids,
  glycine, 529
  insect diet, 529
  larval diet, 529
  serine, 529
AMOVA,
  Acrididae, 276
  biogeography, 276
  mitochondrial DNA, 276
Anadevidia peponis,
  Autographa nigrisigna, 976
  Cotesia glomerata, 976
  cuticular encystment, 976
  Trichoplusia ni, 976
anal tube,
  cuticular pores, 1294
  tegmina, 1294
  wax, 1294
  wax glands, 1294
Anastrepha striata,
  longevity, 1336
  mating behavior, 1336
  sperm depletion, 1336
  trophallaxis, 1336
Anastrepha suspensa,
  mating behavior, 1328
  sperm storage, 1328
Anisopteromalus calandrae,
  dispersal ability, 825
  dispersal behavior, 825
  host quality model, 825
  sex ratio, 825
Anopheles sundaicus,
  cytological forms, 171
  cytotype D, 171
  mitotic karyotype, 171
  polytene chromosome, 171
ant foraging,
  diversity, 450
  flooding, 450
  nest density, 450
  Pseudacteon, 450
antennal length,
  age, 819
  body weight, 819
  sexual selection, 819
  virginity, 819
antennal sensilla,
  electroantennogram, 1273
  plant volatiles, 1273
  sex pheromone, 1273
  Spodoptera frugiperda, 1273
antlion zone,
  Formicidae, 913
  Myrmeleon crudelis, 913
  Myrmeleontidae, 913
  predation risk, 913
ants,
  Pogonomyrmex, 738
  recruitment limitation, 738

Western harvester ants, 738
Apanteles galleriae,
Achoria grisella, 1000
fatty acids, 1000
lipid, 1000
parasitism, 1000
Aphelinus albipodus,
biological control, 249
soybean aphid, 249
Aphelinus gossypii,
18S rDNA, 286
Lipolexis scutellaris, 286
Lysiphlebus testaceipes, 286
Toxoptera citricida, 286
Aphididae,
Cinara, 1165
Pinus edulis, 1165
Pinus monophylla, 1165
Pinyon, 1165
aphids, 923, 1233
communal, 1233
habitat modification, 923
indirect interaction, 923
inquiline, 1233
parasite, 1233
springtails, 923
Tamalia, 1233
Aphis glycines, 209, 227
Aphis gossypii, 227
Aphis nasturtii, 227
China, 209
morphology, 227
Rhamnus cathartica, 227
soybean aphid, 209
Aphis gossypii,
Aphis glycines, 227
Aphis nasturtii, 227
morphology, 227
Rhamnus cathartica, 227
Aphis nasturtii,
Aphis glycines, 227
Aphis gossypii, 227
morphology, 227
Rhamnus cathartica, 227
Aphodiinae,
bioclimatic transition, 701
Coprinae, 701
European mountain, 701
Scarabaeoidea, 701
Apidae,
Neotropical, 386
parasitoid, 386
Phoridae, 386
taxonomy, 386
Apis mellifera, 111, 1313
behavioral development, 1313
cavity selection, 111
colony founding, 111
division of labor, 1313
dopamine, 1313
serotonin, 1313
swarming, 111
Argentina,
Chrysomelidae, 889
Diabrotica calchaqui, 889
Galerucinae, 889
systematics, 889
Argentine ant,
invasive species, 1204
Linepithema humile, 1204
taxonomy, 1204
Asia,
China, 364
Collembola, 364
Pseudosinella, 364
taxonomy, 364
Asilidae,
honey bee predators, 1050
oviposition behavior, 1050
parasitoids, 1050
robber flies, 1050
associated mycobiota,
Beauveria bassiana, 492
coffee borer galleries, 492
Hypothenemus hampei, 492
insect–fungus interaction, 492
Asteralobia,
Cecidomyiidae, 957
Ilex, 957
mitochondrial cytochrome oxidase subunit I gene, 957
speciation, 957
Athysanini,
Deltocephalinae, 667
Hecalini, 667
Neotropical, 667
new species, 667
attraction,
Bactrocera cucurbitae, 1063
host odor, 1063
physiological state, 1063
protein bait, 1063
Australia, 64, 397
Cataclysta, 397
cataclystiform wing pattern, 397
Indonesia, 397
Lygodium microphyllum, 64
Papua New Guinea, 397
pteridophagy, 64
Pyraloidea, 64
southeast Asia, 64
Autographa nigrisigna,
Anadevidia peponis, 976
Cotesia glomerata, 976
cuticular encystment, 976
Trichoplusia ni, 976

B

Bactrocera,
genetic sexing, 1026
melon fly, 1026
quality control, 1026
sterile insect technique, 1026
Bactrocera cucurbitae, 524, 1063
attraction, 1063
fruit fly diet, 524
host odor, 1063
liquid diet, 524
physiological state, 1063
protein bait, 1063
balloon setae,
Calydna, 310
Helicopini, 310
larval defenses, 310
Nymphidiini, 310
Baltic amber,
crane fly, 1126
Diptera, 1126
larva, 1126
Limoniidae, 1126
Beauveria bassiana,
associated mycobiota, 492
coffee borer galleries, 492
Hypothenemus hampei, 492
insect–fungus interaction, 492
Begomovirus,
cassava, 852
cytochrome oxidase I, 852
haplotype, 852
whitefly, 852
behavioral development,
Apis mellifera, 1313
division of labor, 1313
dopamine, 1313
serotonin, 1313
Benin,
forest seeds, 481
host evaluation, 481
stored-product pests, 481
binary trait loci,
defensive behavior, 177
division of labor, 177
guarding behavior, 177
honey bee, 177
bioclimatic transition,
Aphodiinae, 701
Coprinae, 701
European mountain, 701
Scarabaeoidea, 701
biocontrol,
Delphacidae, 271
Eichhornia crassipes, 271
Megamelus scutellaris, 271
water hyacinth, 271
biodiversity, 770, 1263
bioindicator, 1263
Carabidae, 1263
click beetles, 770
Dalopius exilis, 770
diversity, 1263
Elateridae, 770
ranking, 1263
Selatosomus puerilism, 770

biogeographic origin,
biological control, 1103
lacewings, 1103
scale insects, 1103
snakeflies, 1103
biogeography, 97, 276, 519, 647, 1076
Acanthops, 1076
Acrididae, 276
AMOVA, 276
Capniidae, 97
Cicadidae, 647
cladistics, 1076
Danaus plexippus, 519
genetic diversity, 519
mitochondrial DNA, 276
morphology, 97
mtDNA, 519
Neotropics, 1076
Nymphalidae, 519
phylogeny, 97
Plecoptera, 97
song, 647
taxonomy, 647
Tibicen, 647
bioindicator,
biodiversity, 1263
Carabidae, 1263
diversity, 1263
ranking, 1263
biological control, 153, 240, 249, 437, 476, 1103
Aphelinus albipodus, 249
biogeographic origin, 1103
Busseola fusca, 153
citrus, 476
diapause, 153
Dolichopodidae, 437
Eichhornia crassipes, 437
gestation period, 153
Harmonia axyridis, 240
invasive species, 240
lacewings, 1103
larval development, 153
multitrophic, 476
Orius insidiosus, 240
Pontederiaceae, 437
predators, 240
scale insects, 1103
snakeflies, 1103
soybean aphid, 249
Sturmiopsis parasitica, 153
Thrypticus, 437
Toxoptera citricida, 476
biological invasion,
abiotic conditions, 971
survival, 971
temperature, 971
biology,
primary host, 204
Rhamnus spp., 204
soybean aphid, 204
blue-green sharpshooter,
electrical penetration graph, 838
electronic monitoring of insect feeding, 838
probing, 838
Xylella fastidiosa, 838
body color,
juvenile hormone, 302
Schistocerca americana, 302
[His^7]-corazonin, 302
body weight,
age, 819
antennal length, 819
sexual selection, 819
virginity, 819
boxelder bugs,
cannibalism, 500
conspecific necrophagy, 500
Leptocoris trivittatus, 500
survivorship, 500
Braconidae, 15, 928
distribution, 928
environmental factors, 928
Helconinae, 15
interspecific competition, 928
New World, 15
Triaspis, 15
brood rearing,
intercaste, 1299
morphology, 1299
pheromones, 1299
bruchid,
egg size, 346
Gleditsia japonica, 346
host plant quality, 346
parental investment, 346
Burmese,
amber, 882
Cretaceous, 882
Culicidae, 882
mosquito, 882
Busseola fusca,
biological control, 153
diapause, 153
gestation period, 153
larval development, 153
Sturmiopsis parasitica, 153
Buthidae,
phylogeny, 37
Pseudolychas, 37
Scorpiones, 37
taxonomy, 37

C

cabbage seedpod weevil,
canola, 458
developmental biology, 458
host plant preference, 458
Calepitrimerus,
Crataegus, 877
Eriophyidae, 877
Juniperus, 877
Platyphytoptus, 877
systematics, 877
Calydna,
balloon setae, 310
Helicopini, 310
larval defenses, 310
Nymphidiini, 310
cannibalism, 500, 710, 753
boxelder bugs, 500
conspecific necrophagy, 500
Coptotermes formosanus, 753
Cycloneda sanguinea, 710
egg clusters, 710
Formosan subterranean termite, 753
gut fauna, 753
Harmonia axyridis, 710
Leptocoris trivittatus, 500
Olla v-nigrum, 710
survivorship, 500
canola,
cabbage seedpod weevil, 458
developmental biology, 458
host plant preference, 458
Canthon c. cyanellus,
external appendages, 1045
eye color mutations, 1045
gene interactions, 1045
visible genetic marker, 1045
Cape honey bees,
Aethina tumida, 860
European honey bees, 860
hygienic behavior, 860
oviposition, 860
Capniidae,
biogeography, 97
morphology, 97
phylogeny, 97
Plecoptera, 97
Carabidae,
biodiversity, 1263
bioindicator, 1263
diversity, 1263
ranking, 1263
cassava,
Begomovirus, 852
cytochrome oxidase I, 852
haplotype, 852
whitefly, 852
Cataclysta,
Australia, 397
cataclystiform wing pattern, 397
Indonesia, 397
Papua New Guinea, 397
cataclystiform wing pattern,
Australia, 397
Cataclysta, 397
Indonesia, 397
Papua New Guinea, 397

cave cricket,
Kentucky, 989
mycoflora, 989
cavity selection,
Apis mellifera, 111
colony founding, 111
swarming, 111
cDNA,
ferritin, 567
phylogeny, 567
RACE, 567
ticks, 567
Cecidomyiidae,
Asteralobia, 957
Ilex, 957
mitochondrial cytochrome oxidase subunit I gene, 957
speciation, 957
celarius species group,
new combinations, 635
new species, 635
recovery, 635
spider mite, 635
centrifugation,
embryogenesis, 781
polyembryony, 781
short germ-band insect, 781
Cerambycidae,
chemical ecology, 600
contact sex pheromone, 600
ovarioles, 600
chemical ecology,
Cerambycidae, 600
contact sex pheromone, 600
ovarioles, 600
China, 209, 364, 653, 898
Aphis glycines, 209
Asia, 364
Collembola, 364
Ephemeroptera, 898
Heptageniidae, 898
Howarthia cheni, 653
Howarthis cyanea, 653
new species, 653
new subgenus, 898
Pseudosinella, 364
Rhithrogena, 898
soybean aphid, 209
taxonomy, 364
Theclini, 653
chromatography,
electrophoresis, 775
infrared spectroscopy, 775
Pimpla turionellae, 775
venom, 775
Chrysomelidae, 6, 889
Argentina, 889
Diabrotica calchaqui, 889
Diabroticites, 6
Galerucinae, 6, 889
Platybrotica misionensis, 6
systematics, 6, 889
Chrysoperla rufilabris,
alimentary canal, 796
gut, 796
symbiosis, 796
yeast, 796
Cicadidae,
biogeography, 647
song, 647
taxonomy, 647
Tibicen, 647
Cinara,
Aphididae, 1165
Pinus edulis, 1165
Pinus monophylla, 1165
Pinyon, 1165
citrus, 476, 1227
biological control, 476
head capsule width, 1227
instars, 1227
multitrophic, 476
peelminer, 1227
temperature, 1227
Toxoptera citricida, 476
cladistics,
Acanthops, 1076
biogeography, 1076
Neotropics, 1076
clear-cutting,
forest disturbance, 513
invasive species, 513
logging, 513
Solenopsis invicta, 513
click beetles,
biodiversity, 770
Dalopius exilis, 770
Elateridae, 770
Selatosomus puerilism, 770
climate matching,
exotic species, 219
geographic information system, 219
risk assessment, 219
cocoon,
Hoplandria klimaszewskii, 624
hypertrichous, 624
larva, 624
rearing, 624
rove beetles, 624
coffee borer galleries,
associated mycobiota, 492
Beauveria bassiana, 492
Hypothenemus hampei, 492
insect–fungus interaction, 492
COII,
DNA sequence, 548
genetic variation, 548
Rhinotermitidae, 548
termite, 548
Collembola,
Asia, 364
China, 364
Pseudosinella, 364
taxonomy, 364
colony founding,
Apis mellifera, 111
cavity selection, 111
swarming, 111
color polyphenism,
rearing density, 293
Schistocerca americana, 293
temperature, 293
[His^7]-corazonin, 293
Colpurini,
Coreidae, 1
Dutch New Guinea, 1
Heteroptera, 1
communal,
aphid, 1233
inquiline, 1233
parasite, 1233
Tamalia, 1233
competition, 504, 720
altitudinal transect, 504
foraging, 720
habitat partitioning, 504
invasive, 720
mosquito, 720
resource use, 504
resources, 720
spatial distribution, 504
conspecific necrophagy,
boxelder bugs, 500
cannibalism, 500
Leptocoris trivittatus, 500
survivorship, 500
contact sex pheromone,
Cerambycidae, 600
chemical ecology, 600
ovarioles, 600
Coprinae,
Aphodiinae, 701
bioclimatic transition, 701
European mountain, 701
Scarabaeoidea, 701
Coptotermes formosanus, 753, 757
cannibalism, 753
Formosan subterranean termite, 753, 757
gut fauna, 753
nymphs, 757
[His^7]-corazonin, 293, 302
body color, 302
color polyphenism, 293
juvenile hormone, 302
rearing density, 293
Schistocerca americana, 293, 302
temperature, 293
Coreidae,
Colpurini, 1
Dutch New Guinea, 1
Heteroptera, 1

corn,
corn earworm, 1222
cotton, 1222
invasive species, 1222
old world bollworm, 1222
corn earworm,
corn, 1222
cotton, 1222
invasive species, 1222
old world bollworm, 1222
Cotesia glomerata,
Anadevidia peponis, 976
Autographa nigrisigna, 976
cuticular encystment, 976
Trichoplusia ni, 976
cotton,
corn, 1222
corn earworm, 1222
invasive species, 1222
old world bollworm, 1222
crane fly,
Baltic amber, 1126
Diptera, 1126
larva, 1126
Limoniidae, 1126
Crataegus,
Calepitrimerus, 877
Eriophyidae, 877
Juniperus, 877
Platyphytoptus, 877
systematics, 877
Cretaceous,
amber, 882
Burmese, 882
Culicidae, 882
mosquito, 882
crickets,
reinforcement, 831
speciation, 831
crop pollination,
Akaike Information Criterion, 161
diapause, 161
overwintering, 161
respirometry, 161
cryptic female choice,
genitalia, 1007
lock key, 1007
sexually antagonistic coevolution, 1007
cryptic species, 322, 675, 1216
Acari, 322
discrimination, 322
Fergusoninidae, 1216
gall, 1216
genetic variation, 675
morphology, 675
multivariate analysis, 322
mutualism, 1216
paraphyly, 675
phylogeny, 675
plant parasitism, 1216
Sancassania, 322
cryptic species complex,
field cages, 1320
male female performance index, 1320
sexual isolation index, 1320
South American fruit fly, 1320
Culicidae,
amber, 882
Burmese, 882
Cretaceous, 882
mosquito, 882
cuticular encystment,
Anadevidia peponis, 976
Autographa nigrisigna, 976
Cotesia glomerata, 976
Trichoplusia ni, 976
cuticular pores,
anal tube, 1294
tegmina, 1294
wax, 1294
wax glands, 1294
Cyclocephala spp.,
host scraping, 605
ovipositor sheath sensilla, 605
Popillia japonica, 605
venom, 605
Cycloneda sanguinea,
cannibalism, 710
egg clusters, 710
Harmonia axyridis, 710
Olla v-nigrum, 710
cytochrome oxidase I,
Begomovirus, 852
cassava, 852
haplotype, 852
whitefly, 852
cytological forms,
Anopheles sundaicus, 171
cytotype D, 171
mitotic karyotype, 171
polytene chromosome, 171
cytotype D,
Anopheles sundaicus, 171
cytological forms, 171
mitotic karyotype, 171
polytene chromosome, 171

D

Dalopius exilis,
biodiversity, 770
click beetles, 770
Elateridae, 770
Selatosomus puerilism, 770
Danaus plexippus,
biogeography, 519
genetic diversity, 519
mtDNA, 519
Nymphalidae, 519
defensive behavior,
binary trait loci, 177
division of labor, 177
guarding behavior, 177
honey bee, 177
Delphacidae,
biocontrol, 271
Eichhornia crassipes, 271
Megamelus scutellaris, 271
water hyacinth, 271
Deltocephalinae,
Athysanini, 667
Hecalini, 667
Neotropical, 667
new species, 667
Dermaptera,
family relationships, 903
genital evolution, 903
molecular phylogeny, 903
outgroup rooting, 903
development,
lower developmental threshold, 982
mealybugs, 982
Planococcus citri, 982
roses, 982
developmental biology,
cabbage seedpod weevil, 458
canola, 458
host plant preference, 458
Diabrotica calchaqui,
Argentina, 889
Chrysomelidae, 889
Galerucinae, 889
systematics, 889
Diabroticites,
Chrysomelidae, 6
Galerucinae, 6
Platybrotica misionensis, 6
systematics, 6
diapause, 153, 161
Akaike Information Criterion, 161
biological control, 153
Busseola fusca, 153
crop pollination, 161
gestation period, 153
larval development, 153
overwintering, 161
respirometry, 161
Sturmiopsis parasitica, 153
diet,
larval diet, 536
niacin, 536
nicotinic acid, 536
differentiation,
fly larvae, 1069
forensic entomology, 1069
Thailand, 1069
Dinidoridae,
ejaculatory reservoir, 790
Pentatomomorpha, 790
redefinition, 790
reservoir lumen, 790

Diplura,
Entognatha, 411
Hexapoda, 411
Thysanura *sensu lato*, 411
Diptera, 259, 1126
Baltic amber, 1126
crane fly, 1126
Ephydridae, 259
larva, 1126
Limoniidae, 1126
Lipochaetini, 259
Tronamyia phylogeny, 259
directional recognition,
leafminer parasitoid, 586
searching behavior, 586
vibrational cue, 586
discrimination,
Acari, 322
cryptic species, 322
multivariate analysis, 322
Sancassania, 322
dispersal,
intraspecific variation, 940
Mayetiola destructor, 940
mtDNA, 940
Wolbachia, 940
dispersal ability,
Anisopteromalus calandrae, 825
dispersal behavior, 825
host quality model, 825
sex ratio, 825
dispersal behavior,
Anisopteromalus calandrae, 825
dispersal ability, 825
host quality model, 825
sex ratio, 825
distribution,
Braconidae, 928
environmental factors, 928
interspecific competition, 928
diversity, 450, 1263
ant foraging, 450
biodiversity, 1263
bioindicator, 1263
Carabidae, 1263
flooding, 450
nest density, 450
Pseudacteon, 450
ranking, 1263
division of labor, 177, 1313
Apis mellifera, 1313
behavioral development, 1313
binary trait loci, 177
defensive behavior, 177
dopamine, 1313
guarding behavior, 177
honey bee, 177
serotonin, 1313
DNA fingerprinting, 574, 809
geographic variation, 809
H. coagulata, 574
Homalodisca coagulata, 809
inter-simple sequence repeat-polymerase chain reaction, 809
sharpshooter, 574
DNA sequence, 548, 556, 872
COII, 548
genetic variation, 548, 556, 872
introduced species, 872
invasive species, 556
molecular diagnostics, 556
Rhinotermitidae, 548
survey, 872
termite, 548, 556
Dolichopodidae,
biological control, 437
Eichhornia crassipes, 437
Pontederiaceae, 437
Thrypticus, 437
dopamine,
Apis mellifera, 1313
behavioral development, 1313
division of labor, 1313
serotonin, 1313
Dutch New Guinea,
Colpurini, 1
Coreidae, 1
Heteroptera, 1

E

eastern lubber grasshopper,
gene flow, 681
genetic variation, 681
intraspecific variation, 681
mtDNA, 681
eastern subterranean termite,
reproduction, 147
Reticulitermes flavipes, 147
sex ratio, 147
egg clusters,
cannibalism, 710
Cycloneda sanguinea, 710
Harmonia axyridis, 710
Olla v-nigrum, 710
egg parasitoids,
alternative host, 729
life history, 729
Trichogramma acacioi, 729
Trichogramma pretiosum, 729
egg size,
bruchid, 346
Gleditsia japonica, 346
host plant quality, 346
parental investment, 346
eggshell,
embryo, 140
genetic variation, 140
hatch, 140
honey bee, 140
Eichhornia crassipes, 271, 437
biocontrol, 271
biological control, 437
Delphacidae, 271
Dolichopodidae, 437
Megamelus scutellaris, 271
Pontederiaceae, 437
Thrypticus, 437
water hyacinth, 271
ejaculatory reservoir,
Dinidoridae, 790
Pentatomomorpha, 790
redefinition, 790
reservoir lumen, 790
Elateridae,
biodiversity, 770
click beetles, 770
Dalopius exilis, 770
Selatosomus puerilism, 770
electrical penetration graph,
blue-green sharpshooter, 838
electronic monitoring of insect feeding, 838
probing, 838
Xylella fastidiosa, 838
electroantennogram,
antennal sensilla, 1273
plant volatiles, 1273
sex pheromone, 1273
Spodoptera frugiperda, 1273
electronic monitoring of insect feeding,
blue-green sharpshooter, 838
electrical penetration graph, 838
probing, 838
Xylella fastidiosa, 838
electrophoresis,
chromatography, 775
infrared spectroscopy, 775
Pimpla turionellae, 775
venom, 775
embryo,
eggshell, 140
genetic variation, 140
hatch, 140
honey bee, 140
embryogenesis, 541, 781
active transport, 541
centrifugation, 781
pleuropodium, 541
polyembryony, 781
secretion, 541
short germ-band insect, 781
Thermobia domestica, 541
Entognatha,
Diplura, 411
Hexapoda, 411
Thysanura *sensu lato*, 411
environmental factors,
Braconidae, 928
distribution, 928
interspecific competition, 928
Ephemeroptera,
China, 898
Heptageniidae, 898

new subgenus, 898
Rhithrogena, 898
Ephydridae,
Diptera, 259
Lipochaetini, 259
Tronamyia phylogeny, 259
Eriophyidae,
Calepitrimerus, 877
Crataegus, 877
Juniperus, 877
Platyphytoptus, 877
systematics, 877
Essigella californica,
instars, 697
life cycle, 697
European honey bees,
Aethina tumida, 860
Cape honey bees, 860
hygienic behavior, 860
oviposition, 860
European mountain,
Aphodiinae, 701
bioclimatic transition, 701
Coprinae, 701
Scarabaeoidea, 701
exclosure experiment,
natural enemy, 235
population dynamics, 235
soybean aphid, 235
exotic species,
climate matching, 219
geographic information system, 219
risk assessment, 219
external appendages,
Canthon c. cyanellus, 1045
eye color mutations, 1045
gene interactions, 1045
visible genetic marker, 1045
eye color mutations,
Canthon c. cyanellus, 1045
external appendages, 1045
gene interactions, 1045
visible genetic marker, 1045

F

family relationships,
Dermaptera, 903
genital evolution, 903
molecular phylogeny, 903
outgroup rooting, 903
fatty acids,
Achoria grisella, 1000
Apanteles galleriae, *1000*
lipid, 1000
parasitism, 1000
female ratio,
food resource, 994
head width, 994
hyperparasitoid, 994
idiobiont, 994
Fergusoninidae,
cryptic species, 1216
gall, 1216
mutualism, 1216
plant parasitism, 1216
ferritin,
cDNA, 567
phylogeny, 567
RACE, 567
ticks, 567
field cages,
cryptic species complex, 1320
male female performance index, 1320
sexual isolation index, 1320
South American fruit fly, 1320
finite rate of increase,
invasion biology, 130
mosquito, 130
resource competition, 130
flooding,
ant foraging, 450
diversity, 450
nest density, 450
Pseudacteon, 450
fly larvae,
differentiation, 1069
forensic entomology, 1069
Thailand, 1069
food flow,
foraging behavior, 105
polygyne fire ants, 105
rare earth elements, 105
food resource,
female ratio, 994
head width, 994
hyperparasitoid, 994
idiobiont, 994
foraging,
competition, 720
invasive, 720
mosquito, 720
resources, 720
foraging behavior,
food flow, 105
polygyne fire ants, 105
rare earth elements, 105
forensic entomology,
differentiation, 1069
fly larvae, 1069
Thailand, 1069
forest disturbance,
clear-cutting, 513
invasive species, 513
logging, 513
Solenopsis invicta, 513
forest seeds,
Benin, 481
host evaluation, 481
stored-product pests, 481
Formicidae,
antlion zone, 913
Myrmeleon crudelis, 913
Myrmeleontidae, 913
predation risk, 913
Formosan subterranean termite, 753, 757
cannibalism, 753
Coptotermes formosanus, 753, 757
gut fauna, 753
nymphs, 757
fruit fly diet,
Bactrocera cucurbitae, 524
liquid diet, 524
fungal symbionts,
inquilines, 184
mutualism, 184
obligate cecidophage, 184
uniform distribution, 184

G

Galerucinae, 6, 889
Argentina, 889
Chrysomelidae, 6, 889
Diabrotica calchaqui, 889
Diabroticites, 6
Platybrotica misionensis, 6
systematics, 6, 889
gall,
cryptic species, 1216
Fergusoninidae, 1216
mutualism, 1216
plant parasitism, 1216
gene flow, 681, 949
eastern lubber grasshopper, 681
genetic variation, 681
intraspecific variation, 681
mtDNA, 681
nested clade analysis, 949
Pissodes strobi, 949
population structure, 949
gene interactions,
Canthon c. cyanellus, 1045
external appendages, 1045
eye color mutations, 1045
visible genetic marker, 1045
genetic diversity,
biogeography, 519
Danaus plexippus, 519
mtDNA, 519
Nymphalidae, 519
genetic sexing,
Bactrocera, 1026
melon fly, 1026
quality control, 1026
sterile insect technique, 1026
genetic variation, 140, 548, 556, 675, 681, 872
COII, 548
cryptic species, 675

DNA sequence, 548, 556, 872
eastern lubber grasshopper, 681
eggshell, 140
embryo, 140
gene flow, 681
hatch, 140
honey bee, 140
intraspecific variation, 681
introduced species, 872
invasive species, 556
molecular diagnostics, 556
morphology, 675
mtDNA, 681
paraphyly, 675
phylogeny, 675
Rhinotermitidae, 548
survey, 872
termite, 548, 556
genital evolution,
Dermaptera, 903
family relationships, 903
molecular phylogeny, 903
outgroup rooting, 903
genitalia, 420, 1007
Alutacea Group, 420
cryptic female choice, 1007
lock key, 1007
North American *Schistocerca*, 420
phylogeny, 420
sexually antagonistic coevolution, 1007
systematics, 420
geographic information system,
climate matching, 219
exotic species, 219
risk assessment, 219
geographic variation,
DNA fingerprinting, 809
Homalodisca coagulata, 809
inter-simple sequence repeat-polymerase chain reaction, 809
gestation period,
biological control, 153
Bussevola fusca, 153
diapause, 153
larval development, 153
Sturmiopsis parasitica, 153
glaciations,
Gryllidae, 613
Loxoblemmus, 613
speciation, 613
vicariant, 613
Gleditsia japonica,
bruchid, 346
egg size, 346
host plant quality, 346
parental investment, 346
glutathione S-transferase,
Hessian fly, 1285
Mayetiola destructor, 1285
plant allelochemicals, 1285
glycine,
amino acids, 529
insect diet, 529
larval diet, 529
serine, 529
green lacewings,
larvae, 1129
Leucochrysa, 1129
Leucochrysini, 1129
Nodita, 1129
Gryllidae,
glaciations, 613
Loxoblemmus, 613
speciation, 613
vicariant, 613
guarding behavior,
binary trait loci, 177
defensive behavior, 177
division of labor, 177
honey bee, 177
gut,
alimentary canal, 796
Chrysoperla rufilabris, 796
symbiosis, 796
yeast, 796
gut fauna,
cannibalism, 753
Coptotermes formosanus, 753
Formosan subterranean termite, 753

H

H. coagulata,
DNA fingerprinting, 574
sharpshooter, 574
habitat modification,
aphids, 923
indirect interaction, 923
springtails, 923
habitat partitioning,
altitudinal transect, 504
competition, 504
resource use, 504
spatial distribution, 504
haplotype,
Begomovirus, 852
cassava, 852
cytochrome oxidase I, 852
whitefly, 852
Harmonia axyridis, 240, 710
biological control, 240
cannibalism, 710
Cycloneda sanguinea, 710
egg clusters, 710
invasive species, 240
Olla v-nigrum, 710
Orius insidiosus, 240
predators, 240
hatch,
eggshell, 140
embryo, 140
genetic variation, 140
honey bee, 140
head capsule width,
citrus, 1227
instars, 1227
peelminer, 1227
temperature, 1227
head width,
female ratio, 994
food resource, 994
hyperparasitoid, 994
idiobiont, 994
Hecalini,
Athysanini, 667
Deltocephalinae, 667
Neotropical, 667
new species, 667
Helconinae,
Braconidae, 15
New World, 15
Triaspis, 15
Helicopini,
balloon setae, 310
Calydna, 310
larval defenses, 310
Nymphidiini, 310
Heptageniidae,
China, 898
Ephemeroptera, 898
new subgenus, 898
Rhithrogena, 898
Hessian fly,
glutathione S-transferase, 1285
Mayetiola destructor, 1285
plant allelochemicals, 1285
Heteroptera,
Colpurini, 1
Coreidae, 1
Dutch New Guinea, 1
Hexapoda,
Diplura, 411
Entognatha, 411
Thysanura *sensu lato*, 411
Hilarographini,
Microgramma squamulosa, 865
Polypodiaceae, 865
stem galler, 865
Tortrimosaica polypodivora, 865
Homalodisca coagulata,
DNA fingerprinting, 809
geographic variation, 809
inter-simple sequence repeat-polymerase chain reaction, 809
honey bee, 140, 177
binary trait loci, 177
defensive behavior, 177
division of labor, 177

eggshell, 140
embryo, 140
genetic variation, 140
guarding behavior, 177
hatch, 140
honey bee predators,
Asilidae, 1050
oviposition behavior, 1050
parasitoids, 1050
robber flies, 1050
Hoplandria klimaszewskii,
cocoon, 624
hypertrichous, 624
larva, 624
rearing, 624
rove beetles, 624
host evaluation,
Benin, 481
forest seeds, 481
stored-product pests, 481
host odor,
attraction, 1063
Bactrocera cucurbitae, 1063
physiological state, 1063
protein bait, 1063
host plant preference,
cabbage seedpod weevil, 458
canola, 458
developmental biology, 458
host plant quality,
bruchid, 346
egg size, 346
Gleditsia japonica, 346
parental investment, 346
host quality model,
Anisopteromalus calandrae, 825
dispersal ability, 825
dispersal behavior, 825
sex ratio, 825
host scraping,
Cyclocephala spp., 605
ovipositor sheath sensilla, 605
Popillia japonica, 605
venom, 605
host species,
kairomones, 117
natural enemies, 117
resource partitioning, 117
tritrophic interactions, 117
host specificity,
AFLP, 1034
allozymes, 1034
hybridization, 1034
mtDNA, 1034
Spodoptera frugiperda, 1034
Howarthia cheni,
China, 653
Howarthis cyanea, 653
new species, 653
Theclini, 653
Howarthis cyanea,
China, 653
Howarthia cheni, 653
new species, 653
Theclini, 653
hybridization, 28, 1034
AFLP, 1034
allozymes, 1034
host specificity, 1034
insect-plant interactions, 28
molecular systematics, 28
mtDNA, 1034
phylogeography, 28
species limits, 28
Spodoptera frugiperda, 1034
Hydroperla,
Alloperla, 361
Isogenoides, 361
Plecoptera, 361
hygienic behavior,
Aethina tumida, 860
Cape honey bees, 860
European honey bees, 860
oviposition, 860
Hypermastigida,
Oxymonadida, 1242
Reticulitermes spp, 1242
termite identification, 1242
Trichomonadida, 1242
hyperparasitoid,
female ratio, 994
food resource, 994
head width, 994
idiobiont, 994
hypertrichous,
cocoon, 624
Hoplandria klimaszewskii, 624
larva, 624
rearing, 624
rove beetles, 624
Hypothenemus hampei,
associated mycobiota, 492
Beauveria bassiana, 492
coffee borer galleries, 492
insect–fungus interaction, 492

I

idiobiont,
female ratio, 994
food resource, 994
head width, 994
hyperparasitoid, 994
Ilex,
Asteralobia, 957
Cecidomyiidae, 957
mitochondrial cytochrome oxidase subunit I gene, 957
speciation, 957
indirect interaction,
aphids, 923
habitat modification, 923
springtails, 923
Indonesia,
Australia, 397
Cataclysta, 397
cataclystiform wing pattern, 397
Papua New Guinea, 397
infrared spectroscopy,
chromatography, 775
electrophoresis, 775
Pimpla turionellae, 775
venom, 775
inquilines, 184, 1233
aphid, 1233
communal, 1233
fungal symbionts, 184
mutualism, 184
obligate cecidophage, 184
parasite, 1233
Tamalia, 1233
uniform distribution, 184
insect diet,
amino acids, 529
glycine, 529
larval diet, 529
serine, 529
insect–fungus interaction,
associated mycobiota, 492
Beauveria bassiana, 492
coffee borer galleries, 492
Hypothenemus hampei, 492
insect-plant interactions,
hybridization, 28
molecular systematics, 28
phylogeography, 28
species limits, 28
instars, 697, 1227
citrus, 1227
Essigella californica, 697
head capsule width, 1227
life cycle, 697
peelminer, 1227
temperature, 1227
intercaste,
brood rearing, 1299
morphology, 1299
pheromones, 1299
inter-simple sequence repeat-polymerase chain reaction,
DNA fingerprinting, 809
geographic variation, 809
Homalodisca coagulata, 809
interspecific competition,
Braconidae, 928
distribution, 928
environmental factors, 928
intraspecific variation, 681, 940
dispersal, 940
eastern lubber grasshopper, 681
gene flow, 681
genetic variation, 681

Mayetiola destructor, 940
mtDNA, 681, 940
Wolbachia, 940
introduced species,
DNA sequence, 872
genetic variation, 872
survey, 872
invasion biology, 130, 732
finite rate of increase, 130
microsatellites, 732
mosquito, 130
paper wasps, 732
resource competition, 130
invasive,
competition, 720
foraging, 720
mosquito, 720
resources, 720
invasive species, 240, 513, 556, 1204, 1222
Argentine ant, 1204
biological control, 240
clear-cutting, 513
corn, 1222
corn earworm, 1222
cotton, 1222
DNA sequence, 556
forest disturbance, 513
genetic variation, 556
Harmonia axyridis, 240
Linepithema humile, 1204
logging, 513
molecular diagnostics, 556
old world bollworm, 1222
Orius insidiosus, 240
predators, 240
Solenopsis invicta, 513
taxonomy, 1204
termite, 556
Isogenoides,
Alloperla, 361
Hydroperla, 361
Plecoptera, 361

J

Juniperus,
Calepitrimerus, 877
Crataegus, 877
Eriophyidae, 877
Platyphytoptus, 877
systematics, 877
juvenile hormone,
body color, 302
Schistocerca americana, 302
[His^7]-corazonin, 302

K

kairomones, 117, 353
host species, 117
natural enemies, 117
olfactometer, 353
pheromone, 353
resource partitioning, 117
stored products, 353
tritrophic interactions, 117
Kentucky,
cave cricket, 989
mycoflora, 989

L

lacewings,
biogeographic origin, 1103
biological control, 1103
scale insects, 1103
snakeflies, 1103
lamellae,
Phyllophaga obsoleta, 1306
sensilla, 1306
sexual behavior, 1306
sexual dimorphism, 1306
larvae, 624, 1126, 1129
Baltic amber, 1126
cocoon, 624
crane fly, 1126
Diptera, 1126
green lacewings, 1129
Hoplandria klimaszewskii, 624
hypertrichous, 624
Leucochrysa, 1129
Leucochrysini, 1129
Limoniidae, 1126
Nodita, 1129
rearing, 624
rove beetles, 624
larval defenses,
balloon setae, 310
Calydna, 310
Helicopini, 310
Nymphidiini, 310
larval development,
biological control, 153
Busseola fusca, 153
diapause, 153
gestation period, 153
Sturmiopsis parasitica, 153
larval diet, 529, 536
amino acids, 529
diet, 536
glycine, 529
insect diet, 529
niacin, 536
nicotinic acid, 536
serine, 529
leafminer,
Agromyzidae, 1252
marginal area, 1252
trophic relation, 1252
weeds, 1252
leafminer parasitoid,
directional recognition, 586
searching behavior, 586
vibrational cue, 586
Leiophron,
Lygus bug, 743
nymphal parasitoid, 743
Peristenus, 743
Leptocoris trivittatus,
boxelder bugs, 500
cannibalism, 500
conspecific necrophagy, 500
survivorship, 500
Leucochrysa,
green lacewings, 1129
larvae, 1129
Leucochrysini, 1129
Nodita, 1129
Leucochrysini,
green lacewings, 1129
larvae, 1129
Leucochrysa, 1129
Nodita, 1129
life cycle,
Essigella californica, 697
instars, 697
life history,
alternative host, 729
egg parasitoids, 729
Trichogramma acacioi, 729
Trichogramma pretiosum, 729
life history characters,
population growth rate, 765
thelytoky, 765
Trichogramma kaykai, 765
Wolbachia, 765
Limoniidae,
Baltic amber, 1126
crane fly, 1126
Diptera, 1126
larva, 1126
Linepithema humile,
Argentine ant, 1204
invasive species, 1204
taxonomy, 1204
lipid,
Achoria grisella, 1000
Apanteles galleriae, 1000
fatty acids, 1000
parasitism, 1000
Lipochaetini,
Diptera, 259
Ephydridae, 259
Tronamyia phylogeny, 259
Lipolexis scutellaris,
18S rDNA, 286
Aphelinus gossypii, 286
Lysiphlebus testaceipes, 286
Toxoptera citricida, 286
liquid diet,
Bactrocera cucurbitae, 524
fruit fly diet, 524
lock key,
cryptic female choice, 1007
genitalia, 1007

sexually antagonistic coevolution, 1007
logging,
clear-cutting, 513
forest disturbance, 513
invasive species, 513
Solenopsis invicta, 513
longevity,
Anastrepha striata, 1336
mating behavior, 1336
sperm depletion, 1336
trophallaxis, 1336
lower developmental threshold,
development, 982
mealybugs, 982
Planococcus citri, 982
roses, 982
Loxoblemmus,
glaciations, 613
Gryllidae, 613
speciation, 613
vicariant, 613
Lygodium microphyllum,
Australia, 64
pteridophagy, 64
Pyraloidea, 64
southeast Asia, 64
Lygus bug,
Leiophron, 743
nymphal parasitoid, 743
Peristenus, 743
Lysiphlebus testaceipes,
18S rDNA, 286
Aphelinus gossypii, 286
Lipolexis scutellaris, 286
Toxoptera citricida, 286

M

male female performance index,
cryptic species complex, 1320
field cages, 1320
sexual isolation index, 1320
South American fruit fly, 1320
marginal area,
Agromyzidae, 1252
leafminer, 1252
trophic relation, 1252
weeds, 1252
mating behavior, 1328, 1336
Anastrepha striata, 1336
Anastrepha suspensa, 1328
longevity, 1336
sperm depletion, 1336
sperm storage, 1328
trophallaxis, 1336
May beetles,
México, 77
Phyllophaga, 77
southern United States, 77
taxonomy, 77
Mayetiola destructor, 940, 1285
dispersal, 940
glutathione S-transferase, 1285
Hessian fly, 1285
intraspecific variation, 940
mtDNA, 940
plant allelochemicals, 1285
Wolbachia, 940
mealybugs,
development, 982
lower developmental threshold, 982
Planococcus citri, 982
roses, 982
Megamelus scutellaris,
biocontrol, 271
Delphacidae, 271
Eichhornia crassipes, 271
water hyacinth, 271
melon fly, 1018, 1026
Bactrocera, 1026
genetic sexing, 1026
quality control, 1026
sterile insect technique, 1018, 1026
Tephritidae, 1018
transmembrane protein, 1018
white eye, 1018
México,
May beetles, 77
Phyllophaga, 77
southern United States, 77
taxonomy, 77
Microgramma squamulosa,
Hilarographini, 865
Polypodiaceae, 865
stem galler, 865
Tortrimosaica polypodivora, 865
microsatellites,
invasion biology, 732
paper wasps, 732
misidentification,
agriculturally important species, 1159
morphology, 1159
mitochondrial cytochrome oxidase subunit I gene,
Asteralobia, 957
Cecidomyiidae, 957
Ilex, 957
speciation, 957
mitochondrial DNA,
Acrididae, 276
AMOVA, 276
biogeography, 276
mitotic karyotype,
Anopheles sundaicus, 171
cytological forms, 171
cytotype D, 171
polytene chromosome, 171
molecular diagnostics,
DNA sequence, 556
genetic variation, 556
invasive species, 556
termite, 556
molecular phylogeny,
Dermaptera, 903
family relationships, 903
genital evolution, 903
outgroup rooting, 903
molecular systematics,
hybridization, 28
insect-plant interactions, 28
phylogeography, 28
species limits, 28
morphology, 97, 227, 675, 1159, 1299
agriculturally important species, 1159
Aphis glycines, 227
Aphis gossypii, 227
Aphis nasturtii, 227
biogeography, 97
brood rearing, 1299
Capniidae, 97
cryptic species, 675
genetic variation, 675
intercaste, 1299
misidentification, 1159
paraphyly, 675
pheromones, 1299
phylogeny, 97, 675
Plecoptera, 97
Rhamnus cathartica, 227
mosquito, 130, 720, 882
amber, 882
Burmese, 882
competition, 720
Cretaceous, 882
Culicidae, 882
finite rate of increase, 130
foraging, 720
invasion biology, 130
invasive, 720
resource competition, 130
resources, 720
mtDNA, 519, 681, 940, 1034
AFLP, 1034
allozymes, 1034
biogeography, 519
Danaus plexippus, 519
dispersal, 940
eastern lubber grasshopper, 681
gene flow, 681
genetic diversity, 519
genetic variation, 681
host specificity, 1034
hybridization, 1034
intraspecific variation, 681, 940
Mayetiola destructor, 940
Nymphalidae, 519

Spodoptera frugiperda, 1034
Wolbachia, 940
multitrophic,
biological control, 476
citrus, 476
Toxoptera citricida, 476
multivariate analysis,
Acari, 322
cryptic species, 322
discrimination, 322
Sancassania, 322
Musca domestica,
Muscidifurax zaraptor, 592
superparasitism, 592
Muscidifurax zaraptor,
Musca domestica, 592
superparasitism, 592
mutualism, 184, 1216
cryptic species, 1216
Fergusoninidae, 1216
fungal symbionts, 184
gall, 1216
inquilines, 184
obligate cecidophage, 184
plant parasitism, 1216
uniform distribution, 184
mycoflora,
cave cricket, 989
Kentucky, 989
Myrmeleon crudelis,
antlion zone, 913
Formicidae, 913
Myrmeleontidae, 913
predation risk, 913
Myrmeleontidae,
antlion zone, 913
Formicidae, 913
Myrmeleon crudelis, 913
predation risk, 913

N

natural enemies, 117, 235
exclosure experiment, 235
host species, 117
kairomones, 117
population dynamics, 235
resource partitioning, 117
soybean aphid, 235
tritrophic interactions, 117
Neotropical, 386, 667
Apidae, 386
Athysanini, 667
Deltocephalinae, 667
Hecalini, 667
new species, 667
parasitoid, 386
Phoridae, 386
taxonomy, 386
Neotropics,
Acanthops, 1076
biogeography, 1076
cladistics, 1076
nest density,
ant foraging, 450
diversity, 450
flooding, 450
Pseudacteon, 450
nested clade analysis,
gene flow, 949
Pissodes strobi, 949
population structure, 949
new combinations,
celarius species group, 635
new species, 635
recovery, 635
spider mite, 635
new species, 393, 635, 653, 667
Acroneuria, 393
Athysanini, 667
celarius species group, 635
China, 653
Deltocephalinae, 667
Hecalini, 667
Howarthia cheni, 653
Howarthis cyanea, 653
Neotropical, 667
new combinations, 635
North America, 393
Perlidae, 393
Plecoptera, 393
recovery, 635
spider mite, 635
Theclini, 653
new subgenus,
China, 898
Ephemeroptera, 898
Heptageniidae, 898
Rhithrogena, 898
New World,
Braconidae, 15
Helconinae, 15
Triaspis, 15
niacin,
diet, 536
larval diet, 536
nicotinic acid, 536
nicotinic acid,
diet, 536
larval diet, 536
niacin, 536
Nodita,
green lacewings, 1129
larvae, 1129
Leucochrysa, 1129
Leucochrysini, 1129
North America,
Acroneuria, 393
new species, 393
Perlidae, 393
Plecoptera, 393
North American *Schistocerca*,
Alutacea Group, 420
genitalia, 420
phylogeny, 420
systematics, 420
nymphal parasitoid,
Leiophron, 743
Lygus bug, 743
Peristenus, 743
Nymphalidae,
biogeography, 519
Danaus plexippus, 519
genetic diversity, 519
mtDNA, 519
Nymphidiini,
balloon setae, 310
Calydna, 310
Helicopini, 310
larval defenses, 310
nymphs,
Coptotermes formosanus, 757
Formosan subterranean termite, 757

O

obligate cecidophage,
fungal symbionts, 184
inquilines, 184
mutualism, 184
uniform distribution, 184
Ochlerotatus triseriatus,
Aedes albopictus, 194
predation risk, 194
Toxorhynchites, 194
old world bollworm,
corn, 1222
corn earworm, 1222
cotton, 1222
invasive species, 1222
olfactometer,
kairomone, 353
pheromone, 353
stored products, 353
Olla v-nigrum,
cannibalism, 710
Cycloneda sanguinea, 710
egg clusters, 710
Harmonia axyridis, 710
Orius insidiosus,
biological control, 240
Harmonia axyridis, 240
invasive species, 240
predators, 240
outgroup rooting,
Dermaptera, 903
family relationships, 903
genital evolution, 903
molecular phylogeny, 903
ovarioles,
Cerambycidae, 600
chemical ecology, 600
contact sex pheromone, 600
overflow model,
resource value, 1342
weapon, 1342

overwintering,
Akaike Information Criterion, 161
crop pollination, 161
diapause, 161
respirometry, 161
oviposition,
Aethina tumida, 860
Cape honey bees, 860
European honey bees, 860
hygienic behavior, 860
oviposition behavior,
Asilidae, 1050
honey bee predators, 1050
parasitoids, 1050
robber flies, 1050
ovipositor sheath sensilla,
Cyclocephala spp., 605
host scraping, 605
Popillia japonica, 605
venom, 605
Oxymonadida,
Hypermastigida, 1242
Reticulitermes spp, 1242
termite identification, 1242
Trichomonadida, 1242

P

paper wasps,
invasion biology, 732
microsatellites, 732
Papua New Guinea,
Australia, 397
Cataclysta, 397
cataclystiform wing pattern, 397
Indonesia, 397
paraphyly,
cryptic species, 675
genetic variation, 675
morphology, 675
phylogeny, 675
parasite,
aphid, 1233
communal, 1233
inquiline, 1233
Tamalia, 1233
parasitism,
Achoria grisella, 1000
Apanteles galleriae, *1000*
fatty acids, 1000
lipid, 1000
parasitoids, 386, 1050
Apidae, 386
Asilidae, 1050
honey bee predators, 1050
Neotropical, 386
oviposition behavior, 1050
Phoridae, 386
robber flies, 1050
taxonomy, 386
parental investment,
bruchid, 346
egg size, 346
Gleditsia japonica, 346
host plant quality, 346
peelminer,
citrus, 1227
head capsule width, 1227
instars, 1227
temperature, 1227
Pentatomomorpha,
Dinidoridae, 790
ejaculatory reservoir, 790
redefinition, 790
reservoir lumen, 790
Peristenus,
Leiophron, 743
Lygus bug, 743
nymphal parasitoid, 743
Perlidae,
Acroneuria, 393
new species, 393
North America, 393
Plecoptera, 393
pheromones, 353, 1299
brood rearing, 1299
intercaste, 1299
kairomone, 353
morphology, 1299
olfactometer, 353
stored products, 353
Phoridae,
Apidae, 386
Neotropical, 386
parasitoid, 386
taxonomy, 386
Phyllophaga,
May beetles, 77
México, 77
southern United States, 77
taxonomy, 77
Phyllophaga obsoleta,
lamellae, 1306
sensilla, 1306
sexual behavior, 1306
sexual dimorphism, 1306
phylogeny, 37, 97, 420, 567, 675
Alutacea Group, 420
biogeography, 97
Buthidae, 37
Capniidae, 97
cDNA, 567
cryptic species, 675
ferritin, 567
genetic variation, 675
genitalia, 420
morphology, 97, 675
North American *Schistocerca*, 420
paraphyly, 675
Plecoptera, 97
Pseudolychas, 37
RACE, 567
Scorpiones, 37
systematics, 420
taxonomy, 37
ticks, 567
phylogeography,
hybridization, 28
insect-plant interactions, 28
molecular systematics, 28
species limits, 28
physiological state,
attraction, 1063
Bactrocera cucurbitae, 1063
host odor, 1063
protein bait, 1063
Pimpla turionellae,
chromatography, 775
electrophoresis, 775
infrared spectroscopy, 775
venom, 775
Pinus edulis,
Aphididae, 1165
Cinara, 1165
Pinus monophylla, 1165
Pinyon, 1165
Pinus monophylla,
Aphididae, 1165
Cinara, 1165
Pinus edulis, 1165
Pinyon, 1165
Pinyon,
Aphididae, 1165
Cinara, 1165
Pinus edulis, 1165
Pinus monophylla, 1165
Pissodes strobi,
gene flow, 949
nested clade analysis, 949
population structure, 949
Planococcus citri,
development, 982
lower developmental threshold, 982
mealybugs, 982
roses, 982
plant allelochemicals,
glutathione S-transferase, 1285
Hessian fly, 1285
Mayetiola destructor, 1285
plant parasitism,
cryptic species, 1216
Fergusoninidae, 1216
gall, 1216
mutualism, 1216
plant volatiles,
antennal sensilla, 1273
electroantennogram, 1273
sex pheromone, 1273
Spodoptera frugiperda, 1273
Platybrotica misionensis,
Chrysomelidae, 6
Diabroticites, 6

Galerucinae, 6
systematics, 6
Platyphytoptus,
Calepitrimerus, 877
Crataegus, 877
Eriophyidae, 877
Juniperus, 877
systematics, 877
Plecoptera, 97, 361, 393
Acroneuria, 393
Alloperla, 361
biogeography, 97
Capniidae, 97
Hydroperla, 361
Isogenoides, 361
morphology, 97
new species, 393
North America, 393
Perlidae, 393
phylogeny, 97
pleuropodium,
active transport, 541
embryogenesis, 541
secretion, 541
Thermobia domestica, 541
Pogonomyrmex,
ants, 738
recruitment limitation, 738
Western harvester ants, 738
polyandry,
population model, 466
reproductive strategies, 466
subterranean termites, 466
polyembryony,
centrifugation, 781
embryogenesis, 781
short germ-band insect, 781
polygyne fire ants,
food flow, 105
foraging behavior, 105
rare earth elements, 105
Polypodiaceae,
Hilarographini, 865
Microgramma squamulosa, 865
stem galler, 865
Tortrimosaica polypodivora, 865
polytene chromosome,
Anopheles sundaicus, 171
cytological forms, 171
cytotype D, 171
mitotic karyotype, 171
Pontederiaceae,
biological control, 437
Dolichopodidae, 437
Eichhornia crassipes, 437
Thrypticus, 437
Popillia japonica,
Cyclocephala spp., 605
host scraping, 605
ovipositor sheath sensilla, 605
venom, 605
population dynamics,
exclosure experiment, 235
natural enemy, 235
soybean aphid, 235
population growth rate,
life history characters, 765
thelytoky, 765
Trichogramma kaykai, 765
Wolbachia, 765
population model,
polyandry, 466
reproductive strategies, 466
subterranean termites, 466
population structure,
gene flow, 949
nested clade analysis, 949
Pissodes strobi, 949
predation risk, 194, 913
Aedes albopictus, 194
antlion zone, 913
Formicidae, 913
Myrmeleon crudelis, 913
Myrmeleontidae, 913
Ochlerotatus triseriatus, 194
Toxorhynchites, 194
predators,
biological control, 240
Harmonia axyridis, 240
invasive species, 240
Orius insidiosus, 240
primary host,
biology, 204
Rhamnus spp., 204
soybean aphid, 204
probing,
blue-green sharpshooter, 838
electrical penetration graph, 838
electronic monitoring of insect feeding, 838
Xylella fastidiosa, 838
protein bait,
attraction, 1063
Bactrocera cucurbitae, 1063
host odor, 1063
physiological state, 1063
Pseudacteon,
ant foraging, 450
diversity, 450
flooding, 450
nest density, 450
Pseudolychas,
Buthidae, 37
phylogeny, 37
Scorpiones, 37
taxonomy, 37
Pseudosinella,
Asia, 364
China, 364
Collembola, 364
taxonomy, 364
pteridophagy,
Australia, 64
Lygodium microphyllum, 64
Pyraloidea, 64
southeast Asia, 64
Pyraloidea,
Australia, 64
Lygodium microphyllum, 64
pteridophagy, 64
southeast Asia, 64

Q

quality control,
Bactrocera, 1026
genetic sexing, 1026
melon fly, 1026
sterile insect technique, 1026

R

RACE,
cDNA, 567
ferritin, 567
phylogeny, 567
ticks, 567
ranking,
biodiversity, 1263
bioindicator, 1263
Carabidae, 1263
diversity, 1263
rare earth elements,
food flow, 105
foraging behavior, 105
polygyne fire ants, 105
18S rDNA,
Aphelinus gossypii, 286
Lipolexis scutellaris, 286
Lysiphlebus testaceipes, 286
Toxoptera citricida, 286
rearing,
cocoon, 624
Hoplandria klimaszewskii, 624
hypertrichous, 624
larva, 624
rove beetles, 624
rearing density,
color polyphenism, 293
Schistocerca americana, 293
temperature, 293
[His^7]-corazonin, 293
recovery,
celarius species group, 635
new combinations, 635
new species, 635
spider mite, 635
recruitment limitation,
ants, 738
Pogonomyrmex, 738
Western harvester ants, 738
redefinition,
Dinidoridae, 790
ejaculatory reservoir, 790
Pentatomomorpha, 790

reservoir lumen, 790
reinforcement,
crickets, 831
speciation, 831
reproduction,
eastern subterranean termite, 147
Reticulitermes flavipes, 147
sex ratio, 147
reproductive strategies,
polyandry, 466
population model, 466
subterranean termites, 466
reservoir lumen,
Dinidoridae, 790
ejaculatory reservoir, 790
Pentatomomorpha, 790
redefinition, 790
resource competition,
finite rate of increase, 130
invasion biology, 130
mosquito, 130
resource partitioning,
host species, 117
kairomones, 117
natural enemies, 117
tritrophic interactions, 117
resource use,
altitudinal transect, 504
competition, 504
habitat partitioning, 504
spatial distribution, 504
resource value,
overflow model, 1342
weapon, 1342
resources,
competition, 720
foraging, 720
invasive, 720
mosquito, 720
respirometry,
Akaike Information Criterion, 161
crop pollination, 161
diapause, 161
overwintering, 161
Reticulitermes flavipes,
eastern subterranean termite, 147
reproduction, 147
sex ratio, 147
Reticulitermes spp,
Hypermastigida, 1242
Oxymonadida, 1242
termite identification, 1242
Trichomonadida, 1242
Rhamnus cathartica,
Aphis glycines, 227
Aphis gossypii, 227
Aphis nasturtii, 227
morphology, 227
Rhamnus spp.,
biology, 204
primary host, 204
soybean aphid, 204
Rhinotermitidae,
COII, 548
DNA sequence, 548
genetic variation, 548
termite, 548
Rhithrogena,
China, 898
Ephemeroptera, 898
Heptageniidae, 898
new subgenus, 898
risk assessment,
climate matching, 219
exotic species, 219
geographic information system, 219
robber flies,
Asilidae, 1050
honey bee predators, 1050
oviposition behavior, 1050
parasitoids, 1050
roses,
development, 982
lower developmental threshold, 982
mealybugs, 982
Planococcus citri, 982
rove beetles,
cocoon, 624
Hoplandria klimaszewskii, 624
hypertrichous, 624
larva, 624
rearing, 624

S

Sancassania,
Acari, 322
cryptic species, 322
discrimination, 322
multivariate analysis, 322
scale insects,
biogeographic origin, 1103
biological control, 1103
lacewings, 1103
snakeflies, 1103
Scarabaeoidea,
Aphodiinae, 701
bioclimatic transition, 701
Coprinae, 701
European mountain, 701
Schistocerca americana, 293, 302
body color, 302
color polyphenism, 293
juvenile hormone, 302
rearing density, 293
temperature, 293
[His^7]-corazonin, 293, 302
Scorpiones,
Buthidae, 37
phylogeny, 37
Pseudolychas, 37
taxonomy, 37
searching behavior,
directional recognition, 586
leafminer parasitoid, 586
vibrational cue, 586
secretion,
active transport, 541
embryogenesis, 541
pleuropodium, 541
Thermobia domestica, 541
Selatosomus puerilism,
biodiversity, 770
click beetles, 770
Dalopius exilis, 770
Elateridae, 770
sensilla,
lamellae, 1306
Phyllophaga obsoleta, 1306
sexual behavior, 1306
sexual dimorphism, 1306
serine,
amino acids, 529
glycine, 529
insect diet, 529
larval diet, 529
serotonin,
Apis mellifera, 1313
behavioral development, 1313
division of labor, 1313
dopamine, 1313
sex pheromone,
antennal sensilla, 1273
electroantennogram, 1273
plant volatiles, 1273
Spodoptera frugiperda, 1273
sex ratio, 147, 825
Anisopteromalus calandrae, 825
dispersal ability, 825
dispersal behavior, 825
eastern subterranean termite, 147
host quality model, 825
reproduction, 147
Reticulitermes flavipes, 147
sexual behavior,
lamellae, 1306
Phyllophaga obsoleta, 1306
sensilla, 1306
sexual dimorphism, 1306
sexual dimorphism,
lamellae, 1306
Phyllophaga obsoleta, 1306
sensilla, 1306
sexual behavior, 1306
sexual isolation index,
cryptic species complex, 1320
field cages, 1320

male female performance index, 1320
South American fruit fly, 1320
sexual selection,
age, 819
antennal length, 819
body weight, 819
virginity, 819
sexually antagonistic coevolution,
cryptic female choice, 1007
genitalia, 1007
lock key, 1007
sharpshooter,
DNA fingerprinting, 574
H. coagulata, 574
short germ-band insect,
centrifugation, 781
embryogenesis, 781
polyembryony, 781
snakeflies,
biogeographic origin, 1103
biological control, 1103
lacewings, 1103
scale insects, 1103
Solenopsis invicta,
clear-cutting, 513
forest disturbance, 513
invasive species, 513
logging, 513
song,
biogeography, 647
Cicadidae, 647
taxonomy, 647
Tibicen, 647
South American fruit fly,
cryptic species complex, 1320
field cages, 1320
male female performance index, 1320
sexual isolation index, 1320
southeast Asia,
Australia, 64
Lygodium microphyllum, 64
pteridophagy, 64
Pyraloidea, 64
southern United States,
May beetles, 77
México, 77
Phyllophaga, 77
taxonomy, 77
soybean aphid, 204, 209, 235, 249
Aphelinus albipodus, 249
Aphis glycines, 209
biological control, 249
biology, 204
China, 209
exclosure experiment, 235
natural enemy, 235
population dynamics, 235
primary host, 204
Rhamnus spp., 204
spatial distribution,
altitudinal transect, 504
competition, 504
habitat partitioning, 504
resource use, 504
speciation, 613, 831, 957
Asteralobia, 957
Cecidomyiidae, 957
crickets, 831
glaciations, 613
Gryllidae, 613
Ilex, 957
Loxoblemmus, 613
mitochondrial cytochrome oxidase subunit I gene, 957
reinforcement, 831
vicariant, 613
species limits,
hybridization, 28
insect-plant interactions, 28
molecular systematics, 28
phylogeography, 28
sperm depletion,
Anastrepha striata, 1336
longevity, 1336
mating behavior, 1336
trophallaxis, 1336
sperm storage,
Anastrepha suspensa, 1328
mating behavior, 1328
spider mite,
celarius species group, 635
new combinations, 635
new species, 635
recovery, 635
Spodoptera frugiperda, 1034, 1273
AFLP, 1034
allozymes, 1034
antennal sensilla, 1273
electroantennogram, 1273
host specificity, 1034
hybridization, 1034
mtDNA, 1034
plant volatiles, 1273
sex pheromone, 1273
springtails,
aphids, 923
habitat modification, 923
indirect interaction, 923
stem galler,
Hilarographini, 865
Microgramma squamulosa, 865
Polypodiaceae, 865
Tortrimosaica polypodivora, 865
sterile insect technique, 1018, 1026
Bactrocera, 1026
genetic sexing, 1026
melon fly, 1018, 1026
quality control, 1026
Tephritidae, 1018
transmembrane protein, 1018
white eye, 1018
stored-products,
kairomone, 353
olfactometer, 353
pheromone, 353
stored-product pests,
Benin, 481
forest seeds, 481
host evaluation, 481
Sturmiopsis parasitica,
biological control, 153
Busseola fusca, 153
diapause, 153
gestation period, 153
larval development, 153
subterranean termites,
polyandry, 466
population model, 466
reproductive strategies, 466
superparasitism,
Musca domestica, 592
Muscidifurax zaraptor, 592
survey,
DNA sequence, 872
genetic variation, 872
introduced species, 872
survival,
abiotic conditions, 971
biological invasion, 971
temperature, 971
survivorship,
boxelder bugs, 500
cannibalism, 500
conspecific necrophagy, 500
Leptocoris trivittatus, 500
swarming,
Apis mellifera, 111
cavity selection, 111
colony founding, 111
symbiosis,
alimentary canal, 796
Chrysoperla rufilabris, 796
gut, 796
yeast, 796
systematics, 6, 420, 877, 889
Alutacea Group, 420
Argentina, 889
Calepitrimerus, 877
Chrysomelidae, 6, 889
Crataegus, 877
Diabrotica calchaqui, 889
Diabroticites, 6
Eriophyidae, 877
Galerucinae, 6, 889
genitalia, 420
Juniperus, 877
North American *Schistocerca*, 420
phylogeny, 420
Platybrotica misionensis, 6

Platyphytoptus, 877

T

Tamalia,
aphid, 1233
communal, 1233
inquiline, 1233
parasite, 1233
taxonomy, 37, 77, 364, 386, 647, 1204
Apidae, 386
Argentine ant, 1204
Asia, 364
biogeography, 647
Buthidae, 37
China, 364
Cicadidae, 647
Collembola, 364
invasive species, 1204
Linepithema humile, 1204
May beetles, 77
México, 77
Neotropical, 386
parasitoid, 386
Phoridae, 386
Phyllophaga, 77
phylogeny, 37
Pseudolychas, 37
Pseudosinella, 364
Scorpiones, 37
song, 647
southern United States, 77
Tibicen, 647
tegmina,
anal tube, 1294
cuticular pores, 1294
wax, 1294
wax glands, 1294
temperature, 293, 971, 1227
abiotic conditions, 971
biological invasion, 971
citrus, 1227
color polyphenism, 293
head capsule width, 1227
instars, 1227
peelminer, 1227
rearing density, 293
Schistocerca americana, 293
survival, 971
[His^7]-corazonin, 293
Tephritidae,
melon fly, 1018
sterile insect technique, 1018
transmembrane protein, 1018
white eye, 1018
termite, 548, 556
COII, 548
DNA sequence, 548, 556
genetic variation, 548, 556
invasive species, 556
molecular diagnostics, 556
Rhinotermitidae, 548
termite identification,
Hypermastigida, 1242
Oxymonadida, 1242
Reticulitermes spp, 1242
Trichomonadida, 1242
Thailand,
differentiation, 1069
fly larvae, 1069
forensic entomology, 1069
Theclini,
China, 653
Howarthia cheni, 653
Howarthis cyanea, 653
new species, 653
thelytoky,
life history characters, 765
population growth rate, 765
Trichogramma kaykai, 765
Wolbachia, 765
Thermobia domestica,
active transport, 541
embryogenesis, 541
pleuropodium, 541
secretion, 541
Thrypticus,
biological control, 437
Dolichopodidae, 437
Eichhornia crassipes, 437
Pontederiaceae, 437
Thysanura *sensu lato*,
Diplura, 411
Entognatha, 411
Hexapoda, 411
Tibicen,
biogeography, 647
Cicadidae, 647
song, 647
taxonomy, 647
ticks,
cDNA, 567
ferritin, 567
phylogeny, 567
RACE, 567
Tortrimosaica polypodivora,
Hilarographini, 865
Microgramma squamulosa, 865
Polypodiaceae, 865
stem galler, 865
Toxoptera citricida, 286, 476
18S rDNA, 286
Aphelinus gossypii, 286
biological control, 476
citrus, 476
Lipolexis scutellaris, 286
Lysiphlebus testaceipes, 286
multitrophic, 476
Toxorhynchites,
Aedes albopictus, 194
Ochlerotatus triseriatus, 194
predation risk, 194
transmembrane protein,
melon fly, 1018
sterile insect technique, 1018
Tephritidae, 1018
white eye, 1018
Triaspis,
Braconidae, 15
Helconinae, 15
New World, 15
Trichogramma acacioi,
alternative host, 729
egg parasitoids, 729
life history, 729
Trichogramma pretiosum, 729
Trichogramma kaykai,
life history characters, 765
population growth rate, 765
thelytoky, 765
Wolbachia, 765
Trichogramma pretiosum,
alternative host, 729
egg parasitoids, 729
life history, 729
Trichogramma acacioi, 729
Trichomonadida,
Hypermastigida, 1242
Oxymonadida, 1242
Reticulitermes spp, 1242
termite identification, 1242
Trichoplusia ni,
Anadevidia peponis, 976
Autographa nigrisigna, 976
Cotesia glomerata, 976
cuticular encystment, 976
tritrophic interactions,
host species, 117
kairomones, 117
natural enemies, 117
resource partitioning, 117
Tronamyia phylogeny,
Diptera, 259
Ephydridae, 259
Lipochaetini, 259
trophallaxis,
Anastrepha striata, 1336
longevity, 1336
mating behavior, 1336
sperm depletion, 1336
trophic relation,
Agromyzidae, 1252
leafminer, 1252
marginal area, 1252
weeds, 1252

U

uniform distribution,
fungal symbionts, 184
inquilines, 184
mutualism, 184
obligate cecidophage, 184

V

venom, 605, 775
  chromatography, 775
  Cyclocephala spp., 605
  electrophoresis, 775
  host scraping, 605
  infrared spectroscopy, 775
  ovipositor sheath sensilla, 605
  Pimpla turionellae, 775
  Popillia japonica, 605
vibrational cue,
  directional recognition, 586
  leafminer parasitoid, 586
  searching behavior, 586
vicariant,
  glaciations, 613
  Gryllidae, 613
  Loxoblemmus, 613
  speciation, 613
virginity,
  age, 819
  antennal length, 819
  body weight, 819
  sexual selection, 819
visible genetic marker,
  Canthon c. cyanellus, 1045
  external appendages, 1045
  eye color mutations, 1045
  gene interactions, 1045

W

water hyacinth,
  biocontrol, 271
  Delphacidae, 271
  Eichhornia crassipes, 271
  Megamelus scutellaris, 271
wax,
  anal tube, 1294
  cuticular pores, 1294
  tegmina, 1294
  wax glands, 1294
wax glands,
  anal tube, 1294
  cuticular pores, 1294
  tegmina, 1294
  wax, 1294
weapon,
  overflow model, 1342
  resource value, 1342
weeds,
  Agromyzidae, 1252
  leafminer, 1252
  marginal area, 1252
  trophic relation, 1252
Western harvester ants,
  ants, 738
  Pogonomyrmex, 738
  recruitment limitation, 738
white eye,
  melon fly, 1018
  sterile insect technique, 1018
  Tephritidae, 1018
  transmembrane protein, 1018
whitefly,
  Begomovirus, 852
  cassava, 852
  cytochrome oxidase I, 852
  haplotype, 852
Wolbachia, 765, 940
  dispersal, 940
  intraspecific variation, 940
  life history characters, 765
  Mayetiola destructor, 940
  mtDNA, 940
  population growth rate, 765
  thelytoky, 765
  Trichogramma kaykai, 765

X

Xylella fastidiosa,
  blue-green sharpshooter, 838
  electrical penetration graph, 838
  electronic monitoring of insect feeding, 838
  probing, 838

Y

yeast,
  alimentary canal, 796
  Chrysoperla rufilabris, 796
  gut, 796
  symbiosis, 796